



FIG. 1A

(1 : 5 , HEAVY CHAIN) [SEQ ID NO. : 1]

CDR1 VQILEQSGA EVRKPGSSVK VSCKASGGTF SGHVTWVRQ APGQGLEWMG EPIEGSAN YAONYAOKER DRVSIADES TSTSFIISN LSDDDTAVV CARDPPRCS AGRCYTGHEFO_QWGQGTLYTVSS

CDR2

CDR3

CDR1 EVQLEQSGA EVKKPGSSVK VSCQVFGDTF SRYTIQWLRQ APGQGPWMC NUPYVATPNVAOKEGRILS ITADDSTSTA YMELSSURSE DTAVYFCARV_VIPNAIRHTM_GYXEDYWGQG TLTVSS

CDR2

CDR3

(1 : 7 , HEAVY CHAIN) [SEQ ID NO. : 2]

FIG. 1B



FIG. 1C
(1 : 11 , HEAVY CHAIN) [SEQ ID NO. : 3]

CDR1 EVQLEQSGA EVKKPGSSVK VSCKASGGTF SGHVSLSWVVRQ APGQCLEWMG GSISFEFTSN SAOKEGGRVS ITADESASTA YMELSSLRSE DTATYCAKD PPRECSGGNC YPGFEQQWGQQ GTLVTSS

CDR2

CDR3

CDR1 :YQLESQGG WVQPGRSLRU SCAASGFTFK TYGMHHWV/RQA PGKGLEWVAG ISFDGSNOTY ADSYKGRTV SRDNNSRDTVF LQMESSLRUED TAVYCATGG SPEGSIKGRY YLENWGQGTL VTVSS

CDR2

CDR3

(13 , HEAVY CHAIN) [SEQ ID NO. : 4]

FIG. 1D



FIGURE 1E (L1, HEAVY CHAIN) [SEQ ID NO.: 5]

CDR 1 VQLESGGG VVQPGRSRL SCAASGGFTFS AYGMHHWVRQA PGKGLEWVAG IWFEDGSNQYYSDSVYKGRFTV -
CDR 2
CDR 3 SRDNSRNTLF LQMNSLRPED TAVYYCATEV LFGSIKGRRYIENWGQGTLVTVSS

FIGURE 1F (A8, HEAVY CHAIN) [SEQ ID NO.: 6]

CDR 1 VQLESGGP GVVKPGSGTSL TCTVSGGSFR SSSHWWSSWVVRQ PGKGLEWIG EYFFSGSTIYNPSLNDRVFM -
CDR 2
CDR 3 SVDKSKDQVS URLSSVTAAD TAVYYCARSP IKMNNQGRMMLDAFDIWGQGTLVIVSS

FIGURE 1G (A12, HEAVY CHAIN) [SEQ ID NO.: 7]

CDR 1 VQLESGGSE VKKPGSSVVK SCRASGGSFV SYNFNWWVRQA PGQGLEWMGG IIPMEGTANYAQKEQQGRVITI -
CDR 2
CDR 3 TADESTATGY MELSSLRSED TAVYYCAMPY PKHCSRGSFCW GWFDPWGGTLVTVSS



FIG. 2A

(1 : 5 , HEAVY CHAIN) [SEQ ID NO. : 8]

CDR1

CDR 2

CDR3

AELTQSPGTL SLSPGERATL SCRASOSVSS NYLAWYQQRP GQAPRLIYQG ASSRATGIPD RFSGSGSGTD FTLTISRLEP EDFAVYYCQL YGNNSRWTFEGQ GTKVEIK

CDR1

CDR 2

CDR3

AELTQSPATL SLSPGERATL SCRASOSVNK YLAWYQQKPG QAPRLIYDA SNRATGIPAR FSGSGSGTDFT LTISNLEPE DFAQYYCQQR SDWATFGGGT KVEIK

(1 : 7 , HEAVY CHAIN) [SEQ ID NO. : 9]

FIG. 2B



FIG. 2C

(1 : 11 , HEAVY CHAIN) [SEQ ID NO. : 10]

CDR1

CDR2

CDR3

ELTQSPGTRI SLSPGERATL SCGASOSVRS NYLAWYQQKQP GQAPRLIYG VSSRATGIPD RFSGSGSGTD FILTISRLEP EDFAVYYCQQ YGSSPRTFGQ GTKLEK

CDR1

CDR2

CDR3

AELTQSPATL SVSPGERASL SCRASOSVGN NLA WYQQKPG QAPRLIYG G_NTRATGTPDR FSGSGSGTEF TLTISLQSE D F A V Y F C Q H Y _ S T W P L T F G G G TKVEFK

(L3 , HEAVY CHAIN) [SEQ ID NO. : 11]

FIG. 2D



FIGURE 2E (L1, LIGHT CHAIN) [SEQ ID NO.: 12 |

CDR 1 CDR 2 CDR 3
 \ELTQSPGTL SLSVGERATL SCRASQNIYS GYLGWYQQAKP GQPPRLLIYG ASNRAITGIPD
 - RFSGSGSGSGTD FLTTSRLES EDFAVVYCCQ YGSPPYTFGQ GTKVEIK

WITNESS SIGNATURE (A8) TIGHT CHAIN [SEQ ID NO.: 13]

ELTQSPSSL SAFVGDRVTI TCBASQSI SR NLNWYQQKPG TAPKVLIYAA SSLQSGVPSR
- FSGSGSGQTDF TLTTLSQPE DFATVYCQGS YTFPHUFGAQ TKVEVK

FIGURE 2G (A12; HIGHT CHAIN) [SEQ ID NO.: 14]



FIG. 3A

(1 : 5 , HEAVY CHAIN) [SEQ ID NO. : 15]

GAGCTCACGC AGTCTCCAGG CACCCCTCAG TTGTCTGTCT TTGTCTCCAG GGGAAAGAGC CACCCCTCTCC TGCAGGGCCA
GTCAAGAGTGT TAGCAGGAAT TACTTAGGCT GGTAACAGCA GAGACCTGGC CAGGCTCCCCA GGCTCTCAT
CTATGGTCA TCCAGCAGGG CCACTGGCAT CCCAGACAGG TTCAGTGGCA GTGGG1CTGG GACAGACTTC
ACTCTACCA TCAGCAGACT GGAGGCCTGAA GATTTTGAG TGTTATTACTG TCAGCTTTAT GGTAACTCAC
GTTGGACGTT CGGCCAAGGG ACCAAGGTGG AGATCAA

FIG. 3B

(1 : 7 , HEAVY CHAIN) [SEQ ID NO. : 16]

GAGCTCACTC AGTCTCCAGG CACCCCTCAG TTGTCTGTCT TTGTCTCCAG GGGAAAGAGC CACCCCTCTCC TGCAGGGCCA
GTCAAGAGTGT TAACAAGTAC TTAGCCTGGT ACCAACAGAA ACCTGGCCAG GCTCCCAGGC TGATGCATCTA
TGATGCATCC AACAGGGCCA CTGGCATCCC AGCCAGGTTTC ACTGGCAGTG GGTCTGGAC AGACTTCAC
CTCACCATCA GCAAACCTAGA GCCTGAAGAT TTGCGAGTT ATTACTGTCA GCAGCGTAGC GACTGGGTCA
CTTCGGCGG AGGGACCAAG GTGGAGATCA AA



FIG. 3C

(1:11, HEAVY CHAIN) [SEQ ID NO.: 17]

GAGCTCACGC AGTCTCCAGG CACCCCTGTCT TTGTCAGG CGGAAAGAGC CACCCCTCTCC TGGGGGCCA
GTCAGAGGT TAGGAGCACTACTTAGCCT GGTAACCGCA AAAACCTGGC CAGGCTCCC GGCTCCTCAT
CTATGGTGA TCCAGCAGGG CCACCTGGCAT CCCAGACAGG TTCAGTGGCA GTGGGTCTGG GACAGACTTC
ACTCTACCCA TCAGCAGACT GGAGCCTGAA GATTGGCAG TGTTTACTG TCAGCAGT GGTAGCTCAC
CTCGACTT TGGCCAGGG ACCAAGTTGG AGATCAA

FIG. 3D

(L3, HEAVY CHAIN) [SEQ ID NO.: 18]

GAGCTCACGC AGTCTCCAGG CACCCCTGTCT GTGTCTCCAG GGGAAAGAGC CTCCCTCTCC TGCAGGGCCA
GTCAGAGGT CGGTAAACAT TTAGCTGGT ATCAGCAGAA ACCTGGCCAG GCTCCAGGC TCCTCATTTA
TGGTGGAAC ACCAGAGCCA CTGGTACCCC AGACAGGTTCA AGTGGCAGTG GGTCTGGAC AGAATTCAC
CTCACCATCA GCAGCCTGCA GTCTGAGGAC TTGGCAGTT ATTCTGTCA ACACTATAGT ACCTGGCCGC
TCACTTCGG CGGGGGACC AAGGTCGAGT TCAAG



FIGURE 3E (L1, LIGHT CHAIN) [SEQ ID NO.: 19]

GAGGTGCAGC TGCTCGAGTC TGGGGAGGC GTGGTCCAGC CTGGGAGGT CCTGAGACTC TCCTGTGCAG
CGTCTGGATT CACCTTCAGT GCTTATGCCA TGCACTGGGT CGGCCAGGCT OCAGGCAAGG GGCTGGAGTG
GGTGGCAGGT ATATGGTTG ATGGAAGTAA TCAATACTAT TCAGACTCCG TGAAAGGGCG ATTACACGTC
TCCAGAGACA ATTCCAGGA CACGCTGTTT CTGCAAATGA ACAGCCCTGAG ACCCGAGGAC ACGGCTGTCT
ATTACTGTGC QACAGAGGTA CTTTTGGAT CGATTAAGGG GCGTTACTAC CTTGAAACT GGGGCCAGGG
AACCTGGTC ACCGTCCT CA

FIGURE 3F (A8, LIGHT CHAIN) [SEQ ID NO.: 20]

GGGGAGCTCA CCCAGTCTCC ATCGTCCTCG TCTGCATTG TNGGAGACAG AGTCACCATC ACTTGCCTGG
CAAGTCAAG TATTAGCAGG AACTAAATT GGATCAGCA GAAACCAAGGG ACAGGCCCTA AGGTOCTGAT
CTATGCTGCA TCCAGTTGC AAAGTGGGGT CCCATCGAGG TTCACTGGCA GTGGATCTGG GACAGATTTC
ACTCTCACCA TCACCAAGTCT GCACACCTGAA GATTTCGAA CTTACTATTG TCAACAGAGT TACACAACCC
CTCGGACCTT CGGCCAAGGG ACCAAGGTGG AAGTCAA

FIGURE 3G (A12, LIGHT CHAIN) [SEQ ID NO.: 21]

GCCGAGACTCA CGCAGTCTCC AGGCACCCCTG TCTTTGTCTC CAGGGAAAG AGCCACCCCTC TCCTGCAGGG
CCAGTCAAG TCTTAGCAGCA AAATACCTAG CNTGGTACCA ACAGAAACCT GiCCAGGCTC CCAGGCTCTT
CATTATGAT GCATCCAGCA GGGCCACTGG CATCCCAGAC AGGTTCAAGTG GCAGTGGTC TGGGACAGAC
TTCACCTCTCA GCATCAGGCA ATGGGAGCCT GAAGATTG CAGTGTATA CTGTCAAGCAG TATGGAACAC
CTCGGACCTT CGGCCAGGG ACCAAGGTGG AATCAA



FIG. 4A

(1 : 5 , HEAVY CHAIN) [SEQ ID NO. : 22]

CTCGAGCAGT CTGGGGCTGA GGTGAGGAAG CCTGGGTCCCT CGGTGAAGGT CTCCTGCAAG GCTTCTGGAG
GCACCTCAG CGGCCATGTT ATCACCTGGG TGCGACAGGC CCCTGGACAA GGACTTGAGT GGATGGGAGA
GAGCATCCCT ATCTTTGGTT CCCAAACTA CGCTCAAAC TACGGCTCAGA ATTTCGGGA CAGAGTCTCG
ATTATCGCGG AC GAATCCAC GAGCACGTCG TTCAATTGAGC TGAGCAACCT GAGATCTGAC GACACGGCCG
TCTACTACTG TGCGAGAGAC CCTCCAAGAT ATTGCAGTGC TGGTAGATGC TACCCGGAT TCTTCCAGCA
GTGGGCCAG GGCACCCCTCG TCACCGCTCTC CTCA

FIG. 4B

(1 : 7 , HEAVY CHAIN) [SEQ ID NO. : 23]

CTCGAGCAGT CTGGGGCTGA GGTGAAGAAG CCTGGGTCCCT CGGTGAAGGT CTCCTGTCAG GTTTTGGAG
ACACCTCAG CAGATAACACT ATTCAAGTGGT TGCGACAGGC CCCTGGACAA GGCCCTGAGT GGATGGGAAA
TATCATCCCT GTCTATAATA CACCAAACTA CGCGCAGAAG TTTCAGGGCA GACTCTCGAT AACCGCCGAC
GATTCCACGA GCACAGCCTA CATGGAACCTG AGTAGCCTCA GATCTGAGGA CACGGCCGTC TATTCTGTG
CGAGAGTCGT AATAACCAAT GCAATCCGGC ACACGATGGG ATATTACTTT GACTACTGGG GCCAGGGAAC
CCTGGTCACT GTCTCCCTCA



FIG. 4C

(1:11, HEAVY CHAIN) [SEQ ID NO.: 24]

CTCGAGCAGT CTGGGGCTGA GGTGAAGAAG CCTGGGTCCCT CAGTGAAGGT CTCCTGCAAG GCTTCCTGGAG
GCACCTTCAG CGGCCATGTT ATCAGCTGGG TGGCACAGGG CCCTGGACAA GGCTTGAGT GGATGGGGG
GAGTATCTCT TTCTTGGCA CATCAAACTC CGCACAGAAG TTCCAGGGCA GAGTCTCGAT TACCGGGAC
GAATCCGGA GCACAGCCTA CATGGAGCTG AGTAGGCTGA GATCGGAGGA CACGGCCATC TATTACTGTG
CGAAAGACCC TCCAAGATT TGTAGTGGTG GTAAGCTGTA CCCGGGGTTC TTCCAGCAGT GGGGCCAGGG
CACCCTGGTC ACCGCTCC CA

FIG. 4D

(1:3, HEAVY CHAIN) [SEQ ID NO.: 25]

CTCGAGTCGG GGGGAGGGCT GGTCCAGCCCT GGAGGACTCCC TGAGACTCTC CTGTGCAGGG TCTGGATTCA
CCTTCAGAAC GTATGGCATG CACTGGGTCC GCCAGGGTCC AGGCAAGGGG CTGGAGTGGG TGGCAGGTAT
TTCGGTTGAT GGAAGTAACC AATATTACGC AGACTCCGTG AAGGGCCGAT TCATCGTCTC CAGAGACAAT
TCCAGGGACA CGGTGTTCT GCAGATGAGC AGCCTGAGAC TCGAGGACAC GGCTGTCTAT TACTGTGGCA
CAGGGGTTTC TCCCTTTGGC TCGATTAAGG GGCGTTACTA CCTTGAAAAT TGGGGCCAGG GAACCCCTGGT
CACCGCTCC TCA



FIGURE 4E (L1, HEAVY CHAIN) [SEQ ID NO. : 19]

GAGGTGCAGC TGCTCGAGTC TGGGGGAGGC GTGGTCCAGC CTGGGAAGTC CCTGAGACTL SCCTGTGCAG
CGTCTGGATT CACCTTCAGT GCTTATGGCA TGCACTGGGT CGGCCAGGCT CCAGGCAAGG GGCTGGAGTG
GGTGCAGGT ATTGGTTG ATGGAAGTA TCAATACTAT TCAAGACTCCG TGAAAGGGCCQ ATTCACCGTC
TCCAGAGACA ATTCCAGGAA CACGGCTT CTGCAAATGA ACAGGCTGAG ACCCGAGGAC ACGGGCTGTCT
ATTACTGTGC GACAGAGGTA CTTTTGGAT CGATTAAGGG GCGTTACTAC CTTGAAAATC GGGGCCAGGG
AACCCTGGTC ACCGTTCTCC CA

FIGURE 4F (A8, HEAVY CHAIN) [SEQ ID NO. : 26]

GAGGTGCAGC TGCTCGAGTC GGGCCCAGGA CTGGTGAAGC CTTCGGGAC CCTGTCCCCC ACCTGCACTG
TCTCTGGGG CTCATCAGG AGCACTCACT GGTGGAGTT GGTCGGCCAG CCCCAAGGA AGGGACTGGA
GTGGATGGGA GAAGTCTTT TTAGTGGAAAG CACCATCTAC AACCCATCCC TCAACGATCG AGTCTTCATG
TCTGTAGACA ATGCCAAGGA CCAGGTCTCC CTGAGGTGCTGA GCTCTGTGAC CGCCGGGAC ACGGCCGTGT
ATTACTGTGC GAGATCCCCC ATAAAAATGA ATCAGGGAAAG AATGATGTG GATGCCCTTG ATATCTGGGG
CCAGGGACA CTCGTCATCG TCTCTCC

FIGURE 4G (A12, HEAVY CHAIN) [SEQ ID NO. : 27]

GAGGTGCAGC TGCTCGAGTC TGGGTCTGA G GTGAAGAAGC CTGGGTCTTC GGTGAAGGTC TCCTGCAGGG
CCTCTGGGG CAGCTTCAGA AGCTACAATT TCAATTGGGT GCGACAGGCC CCTGGACAAG GTCTTGAGTG
GATGGGAGGC ATCATCCCTA TGTCGGAAC AGCAAAACTAC GCACAGAAAGT TTCAAGGGAG AGTCACAATT
ACCGCCGGACG ATCCACGGC CACAGGCTAC ATGGAGTTGA GCAGTCGTGAG ATCTGAAGAC ACGGCCGTGT
ATTACTGTGC GATGCCCTAT CCAGAACATT GCAGTCGTGG AAGTTGCTGG GGCTGGTTGG ACCCCCTGGGG
CCAGGGAACT CTGGTCACCG TGTCTTC

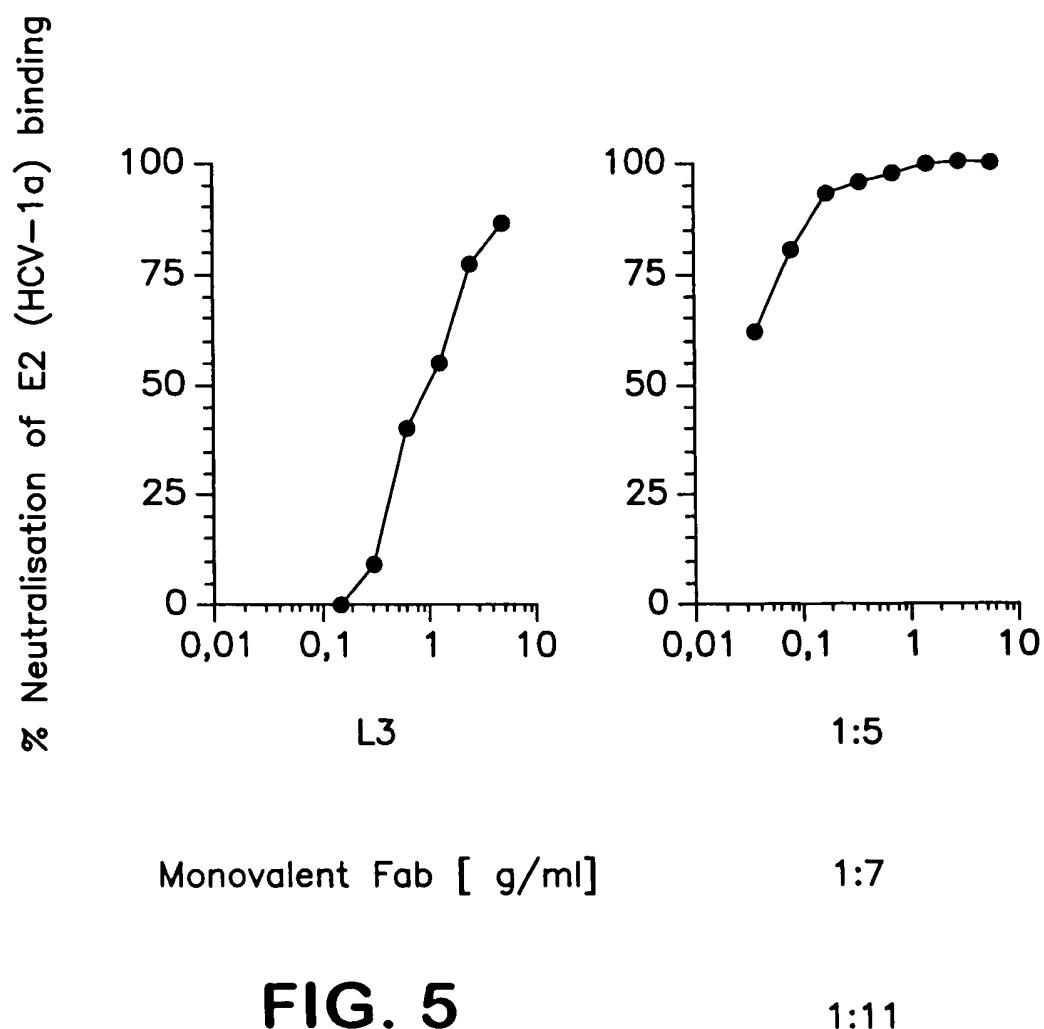


FIG. 5